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## A NEW VARIETY OF CICADA RESEMBLING C. DORSATA.

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Thomas Say states that his Cicada dorsata was found near the Konza village in Missouri, which was located on the Kansas river in what is now the eastern part of the present state of Kansas. Say's original description is in part as follows: "Head and thorax varied with greenish-yellow and black; scutel blackish-chestnut, the W and X marks greenish-yellow, lateral lines of the W white near the thorax, a white line from the humerus is interrupted by the anterior lines of the X, and also in the middle between these two lines, a white spot between the two lateral lines of the X: tergum black, a dorsal line of white spots and a marginal line of white spots which are continued over the terminal segment, the lateral spot of the first and second segments is very much dilated and confluent, that of the third segment is much elongated and attenuated towards the back, a white oblique spot on the first segment each side of the dorsal line; all these white marks are pruinose. Length two inches to the tip of the hemelytra."

Some individuals are a little larger than this. We figure a male from Chetopa, southeastern Kansas. Specimens have been examined from

Nebraska, Coll. Mus. of Comp. Zoölogy, Cambridge, Mass.

Riley Co., Kans., Sept. 7, 1907, male. Collection Brooklyn Museum, N. Y.

Wakefield, Clay Co., Kans., female (J. C. Warren). Davis collection.

McPherson, Kans., Aug. 10, 1913, female. Collection Brooklyn Museum, N. Y.

Chetopa, Labette Co., Kans., July and Aug., 3 males (D. R. Beardslee). Davis collection.

Mountain Grove, Wright Co., Mo., Aug. 4, 1902, male. Davis collection.

Mountain Grove, Wright Co., Mo., female. Collection Mo. Agri. Exp. Sta.

Dallas, Texas, 3 males, 1 female. Collection Museum Comp. Zoölogy, Cambridge, Mass.

In collections there is another cicada usually associated with dorsata, but which is really quite distinct and which we consider to be more of a mountain form of what has been identified as Say's C. marginata (See this Journal for March, 1915, Vol. XXIII, plate 2). This variety is altogether a whiter insect than true marginata; the color of the prothorax is a much lighter yellow-green, the wings show a tendency to be broader in proportion to their length, and when seen in series the head across the eyes is generally narrower.

The male genitalia are, however, alike in the two insects, and very different from those of *Cicada dorsata* as the accompanying figure will show. The prominent line of dorsal white spots has caused its association with *dorsata*. It will be noted that Say says that the ground color of the tergum in *dorsata* is black, whereas in *marginata* and the variety under consideration the segments are yellowish or brownish on their posterior margins.

It may be described as follows:

Cicada marginata var. dealbata new variety.

Type, male, Colorado Springs, Colorado. Davis collection.

Markings resembling those of *C. dorsata*, but *marginata* var. *dealbata* is more green in color and has less black about the central area of the pronotum. The mesonotum is marked as in *dorsata* but is more pruinose; the turgum has a dorsal line of white spots as in *dorsata*, but the sides are broadly pruinose and the posterior margin of each segment is narrowly edged with greenish yellow. Beneath both insects may be of the same color, though *dorsata* is usually much darker. The opercula are about as broad as long and broadly rounded at the tips. The fore wings in *dorsata* are oval in shape with the inner side (radius) of the costal margin blackish; the veins are heavy and

thickened, and the W-mark is prominent, whereas in marginata var. dealbata the fore wings are more acuminate in form, the costal margin is green, darkened beyond the middle of the wing and the W-mark is not conspicuous



Cicada dorsata Cicada marginata



var. dealbata

or is wanting. One of the greatest differences between the two insects is in the genitalia. The uncus in dorsata viewed at full face is narrow and the piece below into which it locks is broadly notched with the extremities rounded. In var. dealbata the uncus is more nearly triangular in shape and the lower piece is narrowly notched with the extremities much produced. The male type of var. dealbata is figured.

Length of body 35 mm.; length of fore wing 46 mm.; expanse of wings 105 mm.

The following specimens are in the author's collection unless otherwise stated:

Mount Hope, Sedgwick Co., Kans., male (J. C. Warren). Collection Brooklyn Museum, N. Y.

McPherson, McPherson Co., Kans., Aug. 10, 1914, male (W. Knaus). Collection Brooklyn Museum, N. Y.

Chevenne Co., Kans., 3,300 ft., male (F. X. Williams).

Colorado, two males.

Denver, Col., August 15, 1912, male (Oslar).

Platte Canon, Jefferson Co., Col., July 25, 1913, male; also male without date (Oslar).

Chimney Gulch Golden, Col., August, male (Oslar).

Pueblo, Pueblo Co., Col., female, Aug. 17, 1878, and female without date. Collection of Cornell University.

Colorado Springs, Col., male, Sept. 3, 1912, male (Oslar).

Durango, La Plata Co., Col., Aug. 1, 1912 male; also male without date (Oslar).

The name Cicada marginata was preoccupied when Say used it in 1825 by the earlier (1790) Cicada marginata of Olivier, now placed in the genus Ariasa. In 1852 Walker proposed the name Cicada marginalis for Say's species and if this is to be used, the name of the insect under consideration should be Cicada marginalis

var. dealbata Davis. However, dealbata will probably be raised to specific rank when more is known about it. Some of our eastern species, which are plainly distinct, like *linnei* and *canicularis*, have similar genitalia.

Distant in his Catalogue of the Cicadidæ (1906) mentions three synonyms of Cicada dorsata. Cicada robertsonii Fitch (1856) is the first of these. The original description states that the wings are "glossy-hyaline, their veins slender, green, becoming light yellow at their apices; rib of the anterior wings edged with black on its inner side, length to the tip of the closed wings in the female two inches and fifteen hundredths. From the Creek Indian territory. . . ." This is not descriptive of either dorsata or marginata var. dealbata and we believe that Cicada resh Haldeman, was probably the insect under consideration.

The next synonym mentioned by Distant is *Thopha varia* Walker. No locality was given when this species was described, but from the size and general description together with the tawny and ferruginous markings mentioned it appears to be the same as *C. dorsata* Say. The wings are said to be "almost colourless, tawny at the base, veins ferruginous, tawny towards the base, where they are partly black, very slightly clouded with tawny towards the tips; first and second cross-veins and the longitudinal vein beyond them clouded with brown." This is a good description of the wings of *Cicada dorsata*.

The third synonym is Fidicina crassa Walker. As in the last description no locality is mentioned, but from the general account of the insect it appears to be a dorsata with the pruinose markings eliminated by age. "Wings vitreous, rather broad; veins tawny, piceous towards the tips. Fore wings with first and second transverse veins very oblique, clouded with dark brown. . . ."

## EXPLANATION OF PLATE XII.

Fig. 1. Cicada dorsata Say.

Fig. 2. Cicada marginata var. dealbata Davis.